Interactive comment on “The time dependence of molecular iodine emission from Laminaria digitata” by S. Dixneuf et al.

Anonymous Referee #1

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This is a very interesting study, providing novel results about the emission of molecular iodine (I₂) from Laminaria digitata. The finding of oscillating I₂ emissions is exciting and has not been previously described. The experimental approach seems sound.

The manuscript has been substantially revised (incl. a more appropriate title) after a previous submission. I would recommend publishing this paper in ACP after minor revisions.

A few specific points:

p. 16507 "It is known that oxidative stress can activate a massive efflux of iodine from Laminaria species resulting in the elusion of molecular iodine and volatile halogenated compounds (Palmer et al., 2005) (so-called &amp;#8220;iodovolatilisation&amp;#8221;)

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The term "iodovolatilisation" has been introduced / used specifically for the emission of molecular iodine (not iodocarbons - see papers by Kylin and Dangeard in the 1st half of the 20th century - iodocarbon emissions from seaweeds were not known then!). Also, the references and parentheses in this sentence are messed up.

p. 16508 "15 ml of a 30% H2O2 solution was added to the water without a living Laminaria plant present." -> Can the authors please provide a final, molar concentration of H2O2?

p. 16509 "Even though in these first experiments we have not yet been able to estimate an I2 flux [mol s⁻¹ kg⁻¹ DW] for Laminaria digitata, our results strongly support the hypothesis by (Saiz-Lopez et al., 2004a) that biogenic emission of I2," -> reformat the citation

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 16501, 2008.